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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/820,453	03/28/2001	Michael J. Borg	10006797-1	6680

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HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

GRAYSAY, TAMARA L

ART UNIT	PAPER NUMBER
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3623

DATE MAILED: 12/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/820,453

Applicant(s)


BORG ET AL.

Examiner

Tamara L. Graysay

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: Reference character 408 (Fig.4) is not mentioned in the specification (p.15, l.17).

Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 12-25 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Although the disclosed invention has a practical application in the technological arts insofar as the method and system apply a predetermined marketing solution (marketing solutions carry an implicit usefulness, and direct mail or email, arguably, are concrete and tangible results).

- a. Regarding claim 12-16, the claimed invention is a product for performing a process, not a specific machine or manufacture defined by structure. The specification merely describes the general function of the software, no specific software is disclosed, although one of ordinary skill in the programming art would be able to practice the invention without undue experimentation. A claimed product for performing a process that is not a specific machine or manufacture may be statutory if it falls within one or both of the safe harbors of post-computer or pre-computer activity or if it is limited to a practical application in the technological arts.

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- i. **Post-Computer Activity:** Product claims 12-16 do not encompass post-computer activity. The process of retrieving data from the component memory, storing the data, and applying marketing solutions, performed by the product, is not post-computer activity, i.e., independent physical acts; but instead include computer activity alone. The embodiment that includes applying marketing solution of sending an email (p.18, l.3) is not post-computer activity because it is performed within the computer.
- ii. **Pre-Computer Activity:** Product claims 12-16 do not encompass pre-computer activity. The process of retrieving data from the component memory, storing the data, and applying marketing solutions, performed by the product, is not pre-computer activity, i.e., manipulation of data representing a physical object or activity; but instead merely transfer data from the component to the database, store the data (unchanged), and associate the data (printing device) to another set of data (marketing solutions) without transformation of signals representing physical objects or activity (e.g., computer processor for measuring physical activity and producing an electrical signal representing the physical activity, measuring physical object with an X-ray and converting the X-ray into an electrical signal representing the physical object, or converting energy waves into electrical signals representing a physical object).
- iii. **Practical Application In the Technological Arts:** Product claims 12-16 do not involve a practical application in the technological arts.

(1) A practical application is one that has a useful, concrete, and tangible result. Arguably, the process of applying marketing solutions is a useful result, however, the marketing solutions are not concrete and tangible as recited in the claims. The marketing center is configured to apply the identified marketing solutions, but the marketing solutions are not positively recited in the claims, and the marketing solutions encompass a telephone “call” which is not a concrete and tangible result, but is rather an intangible result.

(2) The process performed by the product lacks a tie to any technology, and the claimed steps, performed by the product, do not require any use of the technology to implement the invention. The product claims do not recite any limitations that involve a technology, and the process steps performed by the product do not require use of any technology to implement the invention. The retrieving data from the component memory, storing the data, associating the data with a device, searching the database for the device, and applying predetermined marketing solutions, as recited in claims 12-16, are all accomplished in the abstract without applying, involving, using, or advancing any technological art. The recitation in the claim of a “system” is not limited to a technological art, but rather a product for performing a process. The recitation of “database” in the claim is not limited to a technological art,

because a database is a collection of data organized for search and retrieval, which may be printed matter, not necessarily a computer.

Therefore, claims 12-16 are directed to nonstatutory subject matter.

b. Further regarding claims 12-16, the broadest reasonable interpretation of the claimed invention as a whole encompasses a human being as part of either or both of the centers. As to the recycling center it is implicit in the specification that it encompasses human beings because the center “receives depleted toner cartridges” which is not a task assigned to a computer. As to the marketing center the specification reads that it includes “personnel.” Therefore, claims 12-16 are directed to nonstatutory subject matter.

c. Regarding claims 17-20, the claimed invention is a series of steps to be performed on a computer. A claimed process may be statutory if it falls within one or both of the safe harbors of post-computer activity or pre-computer activity or if it is limited to a practical application in the technological arts. The above comments regarding the process claims 1-11 are also applicable to claims 17-20.

i. Post-Computer Activity: Process claims 17-20 do not encompass post-computer activity. The process of identifying a customer, and distributing marketing information is not post-computer activity, i.e., independent physical acts; but instead include computer activity alone. The embodiment that includes distributing marketing information via email (p.18, l.3) is not post-computer activity because it is performed within the computer.

ii. Pre-Computer Activity: Process claims 17-20 do not encompass pre-computer activity. The process of identifying a customer, and distributing

marketing information is not pre-computer activity, i.e., manipulation of data representing a physical object or activity; but instead the process merely transfers data from the component to the database, stores the data (unchanged), associates the data (printing device) to another set of data (marketing solutions), searches the data, and distributes marketing information without transformation of signals representing physical objects or activity (e.g., computer processor for measuring physical activity and producing an electrical signal representing the physical activity, measuring physical object with an X-ray and converting the X-ray into an electrical signal representing the physical object, or converting energy waves into electrical signals representing a physical object).

iii. Practical Application In the Technological Arts: Product claims 17-20 do not involve a practical application in the technological arts.

(1) A practical application is one that has a useful, concrete, and tangible result. Arguably, the process of distributing marketing information is a useful result, however, the marketing information recited in the claims is not concrete and tangible. The marketing center is configured to apply the identified marketing solutions, but the marketing solutions are not positively recited in the claims, and the marketing solutions encompass a telephone "call" which is not a concrete and tangible result, but is rather an intangible result.

(2) Mere ideas in the abstract that do not apply, involve, or advance the technological arts fail to promote the "progress of science and the useful

arts” and therefore are found to be nonstatutory subject matter. For a process claim to pass muster, the recited process must somehow apply, involve, use, or advance the technological arts. In the present application, the process lacks a tie to any technology, and the claimed process steps do not require any use of the technology to implement the invention. The process claims do not recite any limitations that involve a technology, and the claimed process steps do not require use of any technology to implement the invention. The steps of identifying a customer, and distributing marketing information, as recited in claims 17-20, are all accomplished in the abstract without applying, involving, using, or advancing any technological art. Each of the steps may be accomplished manually, or using pencil and paper.

Therefore, claims 17-20 are directed to nonstatutory subject matter.

d. Regarding claims 21-25, the claims recite data stored in a database. The data does not impart any functionality to either the data as claimed or to the computer database. As such, the claimed invention recites nonfunctional descriptive material, i.e., mere data. Nonfunctional descriptive material stored on a computer readable medium is merely carried on the medium, it is not structurally or functionally interrelated to the medium. Therefore, claims 21-25 are directed to nonstatutory subject matter.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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3. Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. Claim 1, line 6, recites “a printing device” [that meets certain search criteria] and at line 8, recites “a printing device” [found to meet the search criteria]. It is unclear whether these printing devices are the same or different since the qualifying description has similar intent and the element itself is referred to by the same name, i.e., a printing device. Further, the claim language is unclear whether the printing device(s) at lines 6 and 8, are the same “printing device” recited at line 3. The printing devices should be related to or distinguished from each other.

b. The preamble of claims 12-16 reads “A system, comprising” however, the body of the claim recites a database (possibly a computer structure) and two “centers” that are described in terms of their attributes. It is unclear from the claim whether the centers include a facility containing persons or whether the centers are computer structure alone.

The claim limited to a system, not a computer system or a computer processing system or a system for performing a function. The structure that the invention comprises is not clearly set forth in the claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. Claims 21-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Magnet (article, Who's winning the information revolution).

Magnet discloses a marketing system that includes issuing a coupon to a customer based on the customer's use (product contained in the customer's cart) of the product. It is inherent in the system that it includes a database having fields that contain data about the product (scanned information), data about the customer, and data about the marketing solution (which product coupon to issue to the customer). The marketing solution field inherently contains the usage criteria insofar as the coupon is issued based on whether the customer is purchasing a particular product. Also, it is inherent that scanner devices operate using a unique identifier for the product that is scanned because the system scanner determines which particular products are in the customer's cart.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-5, 7-11, 17, 18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over McMahon (US-5789732) in view of Bullock (US-5835817).

Regarding claims 1, 2, 4, 5, 7-11, 17, 18, and 20, McMahon discloses a method for retrieving data from the memory on a replaceable component (consumer card 10); storing the data in a marketing database (coupon generating system, c.4, l.10-42); associating the data with a product (purchasing history of the consumer); searching the database for the product (coupon

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and promotional discount opportunities that can be used in the current visit, c.4, l.19-22); and applying a predetermined marketing solution (download coupon and promotional discount opportunities that are redeemed at the point of sale, c.4, l.22-35).

McMahon lacks the method being applied to a replaceable component used in a printing device.

Bullock teaches a printing device component that is replaceable and has a memory chip that stores information related to the usage of the device (cartridge stores data on its memory chip, c.7, l.55-60) and marketing information may be gathered about the printer use.

It would have been obvious to modify the method of McMahon to include information about print cartridge usage, such as suggested by the Bullock method, in order to ensure that a customer receives appropriate coupon and promotional discounts based on the customer's use of print cartridges.

Regarding claim 3, the data stored about the printing device is at the "environment" level as broadly recited, insofar as the data includes information about the shelf life of the cartridge (c.7, l.24-28).

6. Claims 6 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over McMahon (US-5789732) and Bullock (US-5835817), as applied to claims 1 and 17 above, and further in view of Burdick (US-5625816).

Burdick teaches a quality control data that permits users to improve quality based on the data about a particular device, element of a device, or production line. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the McMahon and Bullock combination to include a quality control data field, such as taught by

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Burdick, in order to improve the quality of the printer cartridge based on the data that is retrieved from the memory chip on the printer cartridge.

7. Claims 12, and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bullock (US-5835817).

Bullock discloses a system comprising a marketing database (marketing information is gathered from the used cartridges, c.7, 1.58-60); the marketing database is capable of storing information about a customer as broadly recited (for example, the cartridge marketing data includes information about the cartridge supplier); a recycling center (mail-in program, c.7, 1.58); and a marketing center (manufacturer marketing information, c.7, 1.58-60); the marketing center database is searched for criteria to optimize parameters on the cartridge chip which is a type of marketing solution and quality control insofar as the optimization of the cartridge parameters would enhance the product efficiency and possibly improve sales.

8. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bullock (US-5835817), as applied to claim 12 above, and further in view of McMahon (US-5789732).

McMahon teaches a replaceable component (consumer card) that has a memory chip that stored information about the consumer and the consumer's product usage. McMahon teaches a targeted marketing solution that includes advertising a coupon or promotional discount to a consumer. It would have been obvious to one of ordinary skill in the art to modify the marketing system of Bullock to include an targeted market advertising solution, such as suggested by McMahon, in order to focus improved sales on the market that uses a particular product, i.e., the printing cartridge.

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9. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Magnet (article, Who's winning the information revolution), as applied to claim 21 above, and further in view of Burdick (US-5625816).

Burdick teaches a quality control data that permits users to improve quality based on the data about a particular device, element of a device, or production line. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Magnet to include a quality control data field, such as taught by Burdick, in order to improve the quality of the printer cartridge based on the data that is retrieved from the memory chip on the printer cartridge.

10. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Magnet (article, Who's winning the information revolution).

Magnet is silent as to the particular unique identifier of the product within the database.

The examiner takes official notice that the use of model numbers and serial numbers is a well known expedient in the business field of marketing and sales in order to more accurately track information related to product and component performance and sales. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Magnet to include model and serial number of the printer, in order to more accurately track information regarding the performance and sales of a printer or its components.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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- Helterline (US-6039430) teaches a printer cartridge memory containing information that is not operational.
- Childers (US-5860363) teaches a replaceable print cartridge having a memory that transmits information related to ink level and must be reset upon depletion of ink.
- Material Handling Engineering (article, Bar coding system tracks telecommunications equipment) teaches the use of bar codes to track products.
- Sato (US-2001/0037267) teaches using a computerized system and method for a service center to predict when a customer will be out of toner and notify a customer about printer cartridge supply and empty collection.
- Web Archive (White paper, The cutting edge of RFID technology and applications for manufacturing and distribution) teaches identification system for tracking, inventory, and authentication of products. Although retrieved from a later Web Archive, the document was previously referenced on the Web Archive dated 20010309 (09 Mar 2001).

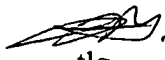
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamara L. Graysay whose telephone number is (703) 305-1918.

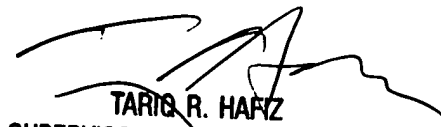
The examiner can normally be reached on Tue - Fri from 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz, can be reached on (703) 305-9643. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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tlg 12/15/04


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